# CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
# STATEMENT OF INVESTMENT POLICY

# FOR
# DEVELOPMENT OF DERIVATIVES STRATEGIES

**November 13, 2007**

*This policy is effective immediately upon adoption and supersedes all previous Derivatives - Investment Office policies.*

## I. PURPOSE

The CalPERS Total Fund Statement of Investment Policy, adopted by the CalPERS Investment Committee ("Committee"), sets forth CalPERS' overarching investment purposes and objectives with respect to all its investment programs.

This document sets forth the policy for the use of each derivative strategy in the CalPERS Investment Office in order to understand and manage the risk attendant in the use of derivatives across CalPERS' various portfolios

## II. STRATEGIC OBJECTIVE

The strategic objective of this Policy is to outline the issues that must be addressed for each new derivatives strategy, whether internally or externally managed, in regard to guidelines and operational requirements.

## III. RESPONSIBILITIES

A. CalPERS' Investment Staff ("Staff") is responsible for the following:

Monitoring the implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of Policies to the Committee. These reports shall include explanations of the violations and appropriate recommendations for corrective action.

B. The **General Pension Consultant** ("Consultant") is responsible for evaluating Derivatives Guidelines to ensure that the necessary issues are addressed.

## IV. PERFORMANCE OBJECTIVE AND BENCHMARK

Not applicable.

## V. DEFINITION

A derivative is broadly defined as a financial instrument whose value, usefulness and marketability, is derived from or linked to the value of an underlying security, commodity, or index that represents either direct ownership of an asset or the direct obligation of an issuer, otherwise known as the cash market instrument. For the purpose of this Policy, a narrow definition of a derivative is used. It shall include only the following components:

A. Futures;

B. Forwards;

C. Swaps;

D. Structured Notes; and,

E. All forms of options.

Derivatives, as defined in this Policy, shall not be construed to include a broad range of securities, such as Collateralized Mortgage Obligations (CMOS) and convertible bonds.

## VI. GUIDELINES

Implementing Derivatives Guidelines shall be written to cover each derivative strategy in CalPERS' Investment Office. At a minimum, implementing Derivatives Guidelines shall address the following:

A. The purpose of the derivative strategy.

B. Justification for the use of derivatives.

C. Description of the risks inherent in the strategy and how they shall be managed. At a minimum, the descriptions shall include pricing risk, liquidity risk, and legal risk.

D. An appropriate risk analysis and monitoring capabilities for any derivative strategy implemented.

E. Implementing Derivatives Guidelines shall address the amount of leverage employed under the strategy, the prudent reasons for employing leverage, and the definition of leverage specific to the strategy, shall be consistent with any Investment Office-wide leverage policy.

F. Acceptable limits on overall exposure to be achieved through derivatives.

G. Criteria by which the use of counter parties is considered acceptable

H. Procedures for monitoring and managing the derivative exposure relative to the strategy including protocol for prompt reporting of violations of limits or other policy requirements.

I. Prohibited uses of derivatives and general restrictions on their use.

J. Provide for periodic staff review, at least annually, of the Derivatives Guidelines, specifically addressing the risks and assumptions it contains.

## VII. OPERATIONAL REQUIREMENTS

To minimize operational risks, CalPERS' Investment Office shall establish the following criteria to support the use of derivatives:

A. A documented procedure in the operations manual for the involvement of and oversight of derivatives activity by the Senior Investment Officer of the appropriate investment unit.

B. A risk management function that shall track the aggregation of risk across CalPERS' various portfolios, including derivative use.

1. The risk management function shall be separated from the portfolio management function, ensuring proper risk management of derivatives use, counter party exposure, and exposure to leverage.

2. The risk management function and all derivatives use shall at all times comply with the requirements of any risk audit function which oversees CalPERS' Investment Office.

C. Sufficient and experienced back office support with sufficient technology and systems for handling confirmations, payment, margin levels, and accounting and reporting of derivative use.

D. Derivative Guidelines shall also have operational procedures that address:

1. Accounting and valuation procedures of derivatives, including mark-to-market procedures.

2. Reconciliation procedures for cash and margin positions with the master custodian bank.

3. Staff duties and responsibilities, including the separation of duties and responsibilities for those authorized to use derivatives.

4. Reports concerning violations of the operational procedures of each specific guideline along with the resolution or the recommended remedy or sanction.

## VIII. CALCULATIONS AND COMPUTATIONS

Not applicable.

## IX. GLOSSARY OF TERMS

Key words used in this policy are defined in CalPERS' Master Glossary of Terms.

<u>Derivatives – Investment Office</u>
Approved by the Policy Subcommittee: March 24, 2000
Adopted by the Investment Committee: May 15, 2000
Revised by the Policy Subcommittee: December 10, 2004
Approved by the Investment Committee: February 14, 2005

<u>Name changed to Development of Derivatives Strategies</u>
Revised by the Policy Subcommittee: October 12, 2007
Approved by the Investment Committee: November 13, 2007

Asset Class Glossary: Investment and Risk Management
Policy: Development of Derivatives Strategies
November 13, 2007

**Cash Market**
The physical market for a deliverable instrument or commodity.

**Collateralized Mortgage Obligation**
A mortgage-backed security that pools together mortgages and separates the cash flows into short, medium, and long classes (often called tranches), allowing a wider range of risk and return characteristics than in the more homogeneous pass-through market.

**Convertible Bond**
A bond that has a provision that permits conversion to the issuer's stock at some fixed ratio.

**Counter Party**
The entity which is in the opposing position to a transaction.

**Forward Contract**
An instrument that allows the purchase or sale of a specific quantity of a commodity, government security, foreign currency, or other financial instrument at the current price, with delivery and settlement at a specified future date.

**Futures**
Exchange-traded contracts to buy or sell a standard quantity of a given instrument, at an agreed price, and date. A future differs from an option in that both parties are obliged to abide by the transaction. Futures are traded on a range of underlying instruments including commodities, bonds, currencies, and stock indices.

**Leverage**
A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).

**Margin**
Collateral representing a portion of the notional amount of a transaction specified by the exchange clearing the transaction or the counter-party to the transaction.

**Mark to Market**
A method of determining the value of securities by applying current trading prices of similar or identical securities to the securities being valued.

**Option**
Contracts that give the purchaser the right, but not the obligation, to buy or sell

an underlying instrument at a certain price (the exercise or strike price) on or before an agreed date (the exercise period). For this right, the purchaser pays a premium to the seller. The seller (writer) of an option has a duty to buy or sell at the strike price, should the purchaser exercise his right.

**Structured Notes**
An instrument representing a financial obligation created by modifying one or more standard financial obligations or instruments (i.e., a bond or mortgage) to create a risk/return profile or cash flow payment stream.  This type of risk or return profile differs from the standard financial instrument from which it derives

**Swap**
Private agreement between two companies to exchange cash flows in the future according to a prearranged formula.